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BREEDING BY THE SNOWY PLOVER IN NORTH DAKOTA AND SOUTH DAKOTA

-- The snowy plover (*Charadrius alexandrinus*) is a small shorebird that breeds on unvegetated beaches along coastlines, rivers, and alkaline lakes. In North America, its breeding distribution extends along the coasts of California, Oregon, and southern Washington, where the population is listed as federally threatened (USFWS 1993), and an interior population occurs on wetlands in western and central states and central Mexico (Page et al. 1995). There have been rare breeding reports in Montana, Wyoming, and Saskatchewan (Page et al. 1995), but no documented breeding records in North Dakota or South Dakota. However, the United States Army Corps of Engineers reported a nest on the Nebraska side of Lewis and Clark Lake, a Missouri River reservoir between South Dakota and Nebraska in 1998 (Sharpe et al. 2001). We herein report the first records of snowy plover breeding in North Dakota and South Dakota.

Biologists have conducted annual surveys along the Missouri River and its reservoirs for the federally-threatened piping plover (*Charadrius melodus*) and the federally-endangered least tern (*Sternula antillarum*) from Nebraska to Montana since 1986. In addition, annual surveys for the piping plover have occurred on many alkaline lakes in central and northwestern North Dakota since the mid 1980's. Surveys are conducted at least weekly from mid-May through late-July in most locations. Therefore, we assumed that if the snowy plover was present in the Dakotas prior to 2007, it would have been detected with these intensive surveys. Indeed, in 2006, two fledged snowy plovers were observed at Long Lake National Wildlife Refuge (LLNWR), ND (ND Bird Listserv Record NDBRC No. 07-018), which were presumably from a nest in the area. In 2007, individuals of the snowy plover were observed on the sparsely vegetated shorelines at two alkaline lakes and four sandbars on the Missouri River system during surveys for the piping plover and the least tern.

At LLNWR, we documented four snowy plover nests during the 2007 nesting season on Long Lake (46° 43' N, 100° 06' W) (Carol Aron, Paul Van Ningen, Michael Rabenberg and Cheryl Jacobs, personal observation). There was at least one additional nest present that was not detected, because we observed an adult with two chicks while the four known nests were still being incubated. We observed five young from three different clutches. Two individuals fledged, likely from one of the three known successful clutches, although since the birds were not banded, we cannot be sure. Indeed, other snowy plover nests might have occurred, as only about 60 percent of the potential breeding habitat along Long Lake was surveyed. Snowy plover nesting also was documented at Stone Lake, a large alkali lake in central South Dakota (44° 52' N, 99° 45' W), with three chicks from three different clutches confirmed (Ricky D. Olson, personal observation). One chick near fledging age was observed with an adult. On the Missouri River in North Dakota, the snowy plover was observed at four locations in 2007, with nesting documented

at two of these; one on the Missouri River below Garrison Dam (47° 06' N, 100° 56' W) and one on Lake Oahe (46° 20' N, 100° 33' W). Eggs hatched in both of these nests, and the nest on Lake Oahe produced two fledglings (Greg Pavelka, personal observation).

In all cases, individuals of the snowy plover shared the same nesting beaches with individuals of the piping plover, and on the Missouri River, also with the least tern. We frequently observed the two plover species feeding together at all locations.

The appearance of the snowy plover in North Dakota and South Dakota coincided with spring flooding conditions on traditional breeding habitats in Texas, Kansas, and Colorado (Brad Andres, United States Fish and Wildlife Service, personal communication). The individuals of the snowy plover we observed might have been displaced and continued north to find suitable breeding habitat. The snowy plover is known to disperse great distances between nesting attempts (over 1100 km), thus long-distance dispersal is not unexpected in this species (Stenzel et al. 1994).--Carol Aron¹, Paul Van Ningen, Michael Rabenberg, Cheryl Jacobs, Greg Pavelka, and Ricky D. Olson, U.S. Fish and Wildlife Service, 3425 Miriam Ave. Bismarck, ND 58501 (CA), U.S. Fish and Wildlife Service, Long Lake National Wildlife Refuge, 12000 353rd St. SE, Moffit, North Dakota 58560 (PVN, MR, CJ), U.S. Army Corps of Engineers, Lewis & Clark Lake Office, P.O. Box 710, Yankton, SD 57078 (GP), PO Box 622, Fort Pierre, SD 57532 (RDO). ¹Corresponding author. E-mail address: Carol_Aron@fws.gov

LITERATURE CITED

- Page, G. W., J. S. Warriner, J. C. Warriner, and P. W. C. Paton. 1995. Snowy plover *Charadrius alexandrinus*. In *The birds of North America*, No. 154 (A. Poole and F. Gill, editors). The Academy of Natural Sciences, Philadelphia, Pennsylvania and The American Ornithologists' Union, Washington, District of Columbia.
- Sharpe, R. S., W. R. Silcock, and J. G. Jorgensen. 2001. *Birds of Nebraska: their distribution and temporal occurrence*. University of Nebraska Press, Lincoln, Nebraska.
- Stenzel, L. E., J. C. Warriner, J. S. Warriner, K. S. Wilson, F. C. Bidstrup and G. W. Page. 1994. Long-distance breeding dispersal of snowy plovers in western North America. *Journal of Animal Ecology* 63:887-902.
- United States Fish and Wildlife Service. 1993. Endangered and threatened wildlife and plants: final rule. *Federal Register* 58:12864-12874.

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